

the medium configured to cause the processor or computer to perform or execute steps comprising any one or more of the steps involved in any one or more of the embodiments, methods, processes, approaches, and/or techniques described herein. For example, some embodiments provide one or more computer-readable storage mediums storing one or more computer programs for use with a computer simulation, with the one or more computer programs configured to cause a computer and/or processor based system to execute steps comprising: identifying a plurality of near field wireless antenna systems including a first antenna system, a second antenna system, and a third antenna system, wherein at least the first antenna system is cooperated with a first CE device and the second antenna system is cooperated with a separate second CE device, wherein each of the plurality of antenna systems comprises a power transfer antenna and one or more communications antennas, wherein the power transfer antenna is configured to enable wireless electrical power transfer between the power transfer antenna and at least one other power transfer antenna of another one of the plurality of antenna systems, and wherein each of the one or more communications antennas is configured to enable wirelessly transmitting and receiving communications with at least one further communications antenna over distances consistent with those to achieve wireless electrical power transfer through the power transfer antenna; receiving wireless coupling parameters corresponding to each of the plurality of antenna systems; determining, based on the wireless coupling parameters, wireless coupling configurations corresponding to at least the first, second, and third antenna systems, wherein the wireless coupling configurations dictate with which one or more of the plurality of antenna systems each of at least the first, second, and third antenna systems of the plurality of antenna systems is to directly communicate; and initiating a communication of one or more configuration instructions directing each of the plurality of antenna systems to be configured in accordance with the determined wireless coupling configurations.

[0122] As described above, in some embodiments, an antenna system 116 and/or a CE device (e.g., second CE device 131) operates as a group and/or near field network controller. Typically, the CE device 131 includes a display to display relevant coupling parameters, coupling configurations, configuration instructions, and/or other such information. Further, in many embodiments, the user can interact with a user interface displayed on the second CE device to obtain information about the near field network, specify coupling configurations for the near field network, and/or modify the configuration of the network. For example, some embodiments provide the user with a table, mapping, and/or pictorial representations of some or all the near field network. In some embodiments, the user can designate a group controller, and the group controller can be selected through link layer protocol or other such selection. The group controller typically receives the coupling parameters. In some implementations, the coupling parameters are tables and/or matrices from the other antenna systems and/or CE devices. Using the coupling parameters, the group controller can configure an overall system mapping of how the antenna systems are to connect to one another. In some instances, the coupling configurations further define the services that are enabled.

[0123] In some embodiments, the group controller can be implemented through a remote CE device that is in com-

munication via a network (e.g., LAN, WAN, WLAN, etc.) with one or more of the antenna systems and/or CE devices of the near field network. The remote CE device, in some embodiments, implements an application that a user can use to manage (create, edit, copy, transfer, recall, etc.) the near field configuration, predefined configurations, and the like. Further, one or more network configurations can be stored locally on the one or more of the antenna systems, CE device or remote CE device, or on a remote server 524. Typically, a group controller can be released to another CE device or antenna system (e.g., in response to a change of CE devices to the network) and restored to the first CE device. Further, some embodiments maintain stored and/or default configurations. In some instances, an antenna system may have default operating conditions and/or a default configuration. Similarly, a group controller may maintain previous and/or default configurations for subsequent utilization. Still further, some antenna systems and/or CE devices utilize authentication procedures. For example, an antenna system and/or CE device requests authentication before some information, data, and/or content is communicated (e.g., before encrypted data can be exchanged or passed through). Those antenna systems and/or CE devices that do not need to authenticate typically start to exchange or pass data after associating and/or coupling with another antenna system. The authentication procedures can be based on exchange and processing of wireless coupling parameters.

[0124] As described above, some embodiments are configured to utilize one or more CE devices that include two or more antenna systems that allow it to wirelessly and inductively couple with two or more different CE devices. As such, in accordance with some embodiments, wireless power transfer and/or wireless communication may be daisy chained between multiple CE devices (e.g., between the first and third CE devices 130, 132 through second CE device 131). Further, second CE device 131 can be configured to independently communicate with the first and/or third CE devices, and/or implement a wireless power transfer to or from one or both of the first and third CE devices. Power transfer and/or communications may be unidirectional or bidirectional depending on an intended operation.

[0125] In some implementations, an antenna system allows one or more of the CE devices to operate without any externally accessible communications ports and/or power cords. Instead, power and communications are received and/or transmitted wirelessly. For example, referring to FIG. 1B, second CE device 131 may receive all operation power from one or both of first CE device 130 and/or third CE device 132. Similarly, the antenna systems allow second CE device 131 to externally communicate with one or more other CE devices without the need for cable, fiber optic, or other such wired communications. For example, second CE device 131 may be a Blu-ray player communicatively coupled with a television (e.g., third CE device 132) to wirelessly communicate multimedia content from a Blu-ray disc to the television for playback without the need for cable connections or external ports. Similarly, second CE device 131 may receive power to operate from the first and/or third CE devices. As such, in some implementations, the CE device can be designed and assembled without any external ports or connectors, and one or more antenna systems can be incorporated that allow the CE device to acquire power and communicate with one or more other CE devices. In some embodiments, CE devices and/or one or more communica-